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ABSTRACT

This paper describes and tests a series of hypotheses about the effects of locality characteristics upon the growth of nonmetropolitan urban places. In the cross-sectional analysis of this study, the potential effectiveness of resource-based development seems limited as a factor in urban growth except in the North Central region. On the other hand, the importance of urban places in low income subregions is underscored by the finding that many of these places are growing. A more intensive examination of these places could determine what role they are playing in the urbanization process. The positive effect of subregional population change upon urban population change is the strongest consistent finding. At the end of the study report, the author makes a number of recommendations for future research and planning of growing cities. (Author/JW)

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SUBREGIONAL EFFECTS ON THE GROWTH AND DECLINE OF NONMETROPOLITAN CITIES

By

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Although the economic activities and historical events occurring within a community's boundaries, insofar as these affect natural increase and net migration, are the principal reasons for population changes in urban areas, a city or town is locationally and functionally circumscribed by conditions imposed by its surrounding milieu. The characteristics of this encompassing environment, whether a county, multi-county, state or regional context, may act to inhibit or favor urban population change. This would seem especially true of the nonmetropolitan sector of the United States in which urban places do not exceed 50,000 population. One would expect the symbiosis of the city-region relationship to be weighted toward the regional influence upon smaller urban places in relatively homogeneous and non-urbanized regions (Lampard, 1955; 1968). The metropolitan area, or nodal region, on the other hand, would be expected to dominate the surrounding hinterland by its organizational and economic control, and population change in the hinterland would result from the economic activity and growth in the metropolis (Duncan et al., 1960; Sonenblum, 1968). This paper will describe and test a series of hypotheses about the effects of locality characteristics upon the growth of nonmetropolitan urban places.

Previous research has shown a considerable and significant regional or subregional effect (depending on the definition of the surrounding area) upon urban population change. Northam (1963), studying declining villages, found a substantial effect due to the census region in which a village was located. Using states as subregions, Hart and Salisbury (1965) showed similar

effects on village change in the North Central region. Others have used Economic Subregions and State Economic Areas as the subregional context and found again "regional" effects although the directionality of the effect was seldom examined (Fanelli and Pederson, 1956; Tarver and Urbon, 1963; Thomas, 1970). The diversity of regional definitions does not weaken the findings, rather it buttresses the argument that surrounding areas can affect the character and growth of places within its geographical and functional limits.

Data and Hypotheses

The units of analysis are the incorporated urban places in the nonmetropolitan counties of the conterminous United States. These places ranged in population size from 2,500 to 50,000 in 1960 and the nonmetropolitan designation is of that date. Some were smaller in 1950 and grew to urban place size in 1960, and others by 1970 had grown larger than 50,000 and had been classified as metropolitan central cities in the most recent census; however, only newly incorporated places (27) or disincorporated places (6) were excluded from the analysis. This left a total of 2,574 places in existence for three census dates.

Since information about annexation is not yet available from the 1970 census, no tables controlling for growth due to annexation are presented here; however, we did examine the effect of annexation in the fifties. For these nonmetropolitan cities, controlling for annexation made no difference in the directionality of any relationships. Also, the zero-order correlation was .90 between population

change 1950-60 and population change in a constant area (excluding annexed areas). The analysis is, therefore, limited to population change in a decade without consideration of annexation.

The subregional context will be the State Economic Area as delineated in the 1960 U.S. Census.[1] These areas are relatively homogeneous sets of counties (or occasionally a large single county), grouped according to socio-economic indices, land use patterns, labor force characteristics and economic characteristics of agricultural production (Bogue, 1950).

Besides the subregional effect itself, specific characteristics about the locality are hypothesized to affect differentially the growth of urban places within its boundaries. One subregional economic indicator is the level of extractive employment in the area. Although the mechanization and reorganization of agriculture and the shift of employment out of extractive into manufacturing and tertiary sectors has been proceeding for some time, considerable variation remains in the levels of extractive employment. The combined effect of reorganization and rural to urban migration should lead to an inverse relationship between urban growth and levels of extractive employment in the subregion (Thomas, 1970).

This national shift in economic activity would seem to indicate, further, a positive association between manufacturing and level of urbanization, such as Beverly Duncan (1959) found for

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[1] For the sake of clarity, in the remainder of this paper, regions refer to the conventional census regions - Northeast, North Central, South and West - and subregions refer to State Economic Areas only.

nonmetropolitan SEA's (see also Duncan et al., 1960: 169). But the association between levels of manufacturing and nonmetropolitan urban growth is not so clear-cut. Thompson's (1965: 33-37; 1969: 571-576) discussion of the economic viability of remote small urban areas pinpoints an inherent problem in analyzing population growth as a function of the levels of manufacturing. These nonmetropolitan cities are often growing (at one point in time) by the infusion of aging and slow-growing industries which provide little or no improvement in the income and skill levels of the labor force or in the attractiveness of the place for other industries and population. Yet other nonmetropolitan cities, characterized by the same level of manufacturing employment, can be expected to continue to grow over time, because of the combined effects of accessibility to resources and markets, and, specifically, the involvement in high-growth manufacturing industries. This mixed relationship possibly explains why Thomas (1970) using Economic Subregions[2] for both metropolitan and nonmetropolitan areas found only a low positive association between percent engaged in manufacturing and small town growth. Our expectations would be for a similar positive association in nonmetropolitan subregions.

The final economic indicator, which is in part a function of the occupational composition of the area and therefore would encompass both the extractive and manufacturing variables, is the median family income of the SEA in 1959. In a cross-sectional

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[2]Economic Subregions are made up of contiguous State Economic Areas; moreover, ESR's delineate the geographical subregions without regard for political (state) boundaries.

analysis, one would expect a positive association between income levels and subregional growth, and between income levels and urban growth within the subregion; however, one might hypothesize that the urban places within SEA's would be experiencing growth at the extremes of the income variable, i.e., in low-income areas the rural to urban movement would continue, whereas in high income areas both urban places and rural non-farm areas would be growing in population. This would seem consistent with the outmigration from farms to small towns in agriculturally declining and low income areas and the trends toward suburbanization even around nonmetropolitan cities.

We have already reviewed some of the literature which stressed the need for consideration of subregional effects. A few studies (Gibbs, 1961; Higgs, 1969; Thomas, 1970) have analyzed the association between the growth rates of surrounding areas and the growth rates of urban centers within subregional boundaries; these studies have found a consistent positive association. We would expect the same. In this study, State Economic Area change from 1950-60 has been calculated excluding the population of the urban place.

Finally, controls for the U.S. Census regions will be used throughout the analysis. Size of place at the beginning of each decade will be controlled for in the regression analysis. Also, a measure of the relationship between nonmetropolitan places themselves was formulated which determined the proximity of smaller places to and potential dependency upon larger, yet still submetropolitan, cities. Places under 10,000 population were coded

as adjacent if a place greater than 10,000 population were in the same county and isolated if no larger place were in the same county. We have, thus, a classification of places, as of 1960, as submetropolitan cities, potential suburban communities, and local service centers.

The dependent variable is the percent population change during the decades 1950-60 and 1960-70. At a theoretical level one might be interested in changes in the aggregate levels of urbanization, but at a practical level, one is more interested in the relationship between the independent variables and the proportion of viable places in the subregion. In the tabular presentation, we have used as the dependent variable the percentage distribution of places, trichotomizing their rate of growth over the decade. During the 1950-60 decade, the upper limit was 20% or more, and during 1960-70, the upper limit was 15% or more, each representing a growth rate greater than the national average of the decade.

Results

Population growth in urban places continued during the 1960-70 decade but not as rapidly as it had occurred during the previous decade. While the total United States population growth rate declined from 18.5 to 13.3% in the latter decade, the nonmetropolitan growth rate remained about the same - slightly over 7% per decade. Within this nonmetropolitan sector urban growth declined from 17.8% in the fifties to 10.0% in the sixties.

The hypothesis of an inverse association between levels of extractive employment and urban growth is not substantiated for

e U.S. as a whole. But within regions, distinct patterns are evident. Table 1 shows that in the Northeast and North Central regions, as the subregion became more heavily engaged in extractive enterprises, the percent of urban places growing over 20% declined during the 1950's. In Table 2 for the 1960's, however, the inverse relationship is evident only for the Northeast and the South, as the North Central region seems to have turned around, showing a slight positive relationship between urban growth and levels of extractive employment.

The positive relationship between manufacturing and place growth is, also, not found; in fact, considerable variation within regions for both decades, Tables 3 and 4, indicates that further specificity of the manufacturing variable, such as processing and fabricating, to show the qualitative character of the enterprises, might be a better predictor of urban growth.

The relationship between income levels of the subregion and place growth likewise does not follow a single monotonic pattern. For the total United States, during both decades (Tables 5 and 6), the greatest percentage of places growing over the national average was in the lowest and highest income SEA's. This is clearly due to regional differences in income levels since the Northeast and West have practically no places in a subregion with median income below $4,000; yet, within all four regions, a positive association between income levels of the SEA, and urban place growth is found (only the Western region deviates slightly) for the 1950-60 decade. As Table 6 shows, this positive association remained for the Northeast and West during the 1960's,

but urban place growth in the North Central and South showed little variation across income levels. If one considers only the loss category, however, in Table 6 the South shows a positive pattern of losses as income levels of the subregion increase. The research focus, whether growth of any kind, or above average growth, in this case, affects the categories within the analysis and the interpretation of the results.

When we analyzed the growth of places by subregional growth, 1950-60, excluding the place itself, (Tables 7 and 8), a strong positive association was found. Although this relationship held up within regions, the South in the sixties experienced a substantial decline in the percentage of places exceeding the national average in subareas that had previously been rapidly growing. Specifically, of 274 places in growing subregions, 69% grew more than 20% during 1950-60; but only 33% exceeded 15% growth in the later decade.

From these bivariate tables, we could make a number of comments about the subregional effects upon urban population change; however, some previous research on small town population change, using similar variables for Economic Subregions, had an intriguing result that bears further investigation.

Thomas (1970) examined the effect of regional growth rates upon small town growth rates and used a path analytic technique to determine the direct and indirect effects of regional characteristics upon regional growth and place growth. Some of the characteristics that he used were the percent employed in manufacturing in the Economic Subregion, percent rural-farm residents, the average value of farm products, the average value of the farm itself and the median income of the Economic Subregion. As we pointed out

earlier, he found a significant positive regional effect on urban population change, and a positive direct effect due to manufacturing. Other variables that had a strong direct and indirect effect included percent urban, percent rural-farm, value of agricultural production, percent in white collar employment and median income of the Economic Subregion. The finding that Thomas did not try to explain was that after controlling for Economic Subregion population change, the median income of the ESR had a significant negative direct effect upon population change of the small towns in his study.

In Tables 9 and 10, we controlled for region, and SEA population change, before examining the relationship between income levels and nonmetropolitan urban population change. In each cell, we have given the percent of places (and the total number of places) that experienced growth over the decade. (Similar patterns were found using the above average growth categories of previous tables; but for ease of interpretation, we dichotomized between growing and declining places.)

With the exception of the West, Table 9 shows, during the 1950's, an inverse relationship between income levels and urban growth in declining subregions. But, during the 1960-70 decade, the South is the only region that continues this clear-cut growth of urban places in low-income, declining subregions; the Northeast region had a positive pattern of urban growth by income levels within each category of SEA population change, and the West and North Central regions show a mixed pattern across categories of SEA change.

Regression Analysis

In order to establish the relative influence of the subregional factors upon population change of the urban places within the SEA, a regression analysis was carried out. The dependent variable was population change in the place during each decade; and the independent variables were the subregional characterisitcs and size of place at the beginning of the decade.

In the regression equation for 1960-70, we included two more binary variables which described nonmetropolitan places as either submetropolitan cities over 10,000 population, or adjacent, smaller cities in the same county. The category of isolated places less than 10,000 population in a county without a larger city, was left out of the equation; so the significance of the regresssion coefficient for the two former variables depends upon differences between the mean growth rates of submetropolitan cities and isolated cities, or between the mean growth rates of adjacent places and isolated cities.

Although the regression models (Tables 11 and 12) do not explain large amounts of the variance in population change, for the nonmetropolitan U.S., the standardized regression coefficients do show that subregional growth has a significant positive effect in both decades. The levels of manufacturing and extractive production have only a modest negative effect (not significant in 1960-70); whereas median income level has a significant negative influence on urban growth in both decades. Size of place in 1950, after controlling for the subregional variables, is inversely associated with change during 1950-60; however, size in 1960 has

little influence on the 1960-70 change. No significant effect can be attributed to places over 10,000, but a significant positive difference exists in favor of adjacent small places over isolated small places. When one examines the coefficients within regions,(Table 11), only SEA population change during 1950-60 and size of place in 1950 have any significant effects on urban population change from 1950-60. Except for the North Central region, levels of extractive and manufacturing employment and median income of the SEA have only modest negative effects on urban growth.

Examining Table 12 in detail, in which population change from 1960-70 is regressed on subregional characteristics, size of place and dependency status of the place to a larger nonmetropolitan place, some substantial regional differences occur. As we pointed out in the cross-tabulation earlier, when subregional change is controlled, the relationship of income and place change reverses even though at the zero-order level the association was positive. This primarily is due to the growth of substantial numbers of places in declining and low-income areas of the South and North Central regions. In the highly urbanized Northeast and West, median family income has a positive effect on urban growth; but in the Northeast, this growth is inversely occurring with respect to size of place; whereas in the West, size of place has a significant positive effect. Adjacent places under 10,000 also are growing significantly more than isolated places under 10,000 in the West.

In the North Central region, the directionality of the regression coefficients is somewhat surprising. When the other subregional characteristics are controlled, both levels of extractive

and manufacturing employment have significant positive direct effects on urban population change, and subregional growth, as expected, has a positive effect, while income levels have only a modest negative direct effect.

Within the South, subregional population change has a direct positive effect upon urban place growth; meanwhile, when subregional growth is controlled, the income levels of the subregion have a negative effect upon urban population change. This would indicate that the movement to Southern small cities and towns from surrounding rural areas has not lessened. Finally, there is a significant negative effect of extractive subregions upon urban growth within these areas.

Summary and Discussion

Although this analysis has stressed the subregional effects upon the growth experience of urban places in differing economic and demographic environments, it is quite clear that these variables do not fully explain the process of urban growth. These factors do, however, represent some broad areas of policy decision-making. Whether to expand manufacturing employment or reorganize further agricultural production, to encourage out-migration from a low income area or in-migration to a submetropolitan city - each decision will have a direct impact upon a specific locality and indirect effects throughout the surrounding subregion. In this cross-sectional analysis, the potential effectiveness of resource-based (extractive) development seems limited as a factor in urban growth except in the North Central region. Only in the

North Central region does the level of manufacturing seem to be associated with urban growth; however, the quality and caliber of the manufacturing enterprise has not been considered.

The importance of urban places in low income subregions is underscored by the finding that many of these places are growing. A more intensive examination of these places could determine what role they are playing in the urbanization process. Are these cities the first stage in the rural to urban migration stream and functioning as way stations? Or are they providing economic opportunities for local movers as well as in-migrants, so that they might become the growth centers of a subregion? This paper does not answer these questions but the evidence of growing places in low income and declining subregions indicates that specific characteristics of the city itself may tip the city-region relationship so that the city influences its subregional hinterland in the future. To write off nonmetropolitan places under 50,000 population as non-economically viable enterprises, as Hansen (1970) and Borts (1968) would recommend, may be defensible if one is advocating place self-sustenance as the means to achieve growth and redistribution of the population. However, in these communities, subsidization of an extensive infrastructure including vocational schools, transportation facilities, housing and plant construction would provide a focus and support essential services for the surrounding declining area and possibly the impetus for continued economic growth.

The positive effect of subregional population change upon urban population change is the strongest consistent finding. And

it is within this subregional growth context that the value of a larger areal perspective becomes evident. If one were focusing on the economic development and growth of a particular submetropolitan city and it failed to grow substantially in terms of population, by ignoring the spill-over growth to nearby suburban communities, the false conclusion that the program was ineffective might be reached. The interrelatedness of the growth experience of larger places and smaller places in the same county indicates that developmental programs could be initiated which achieved differing results for specific places but in which the entire county or set of counties would benefit. This premise of regional planning and development is definitely substantiated by the growth experience of nonmetropolitan urban places during the past two decades.

This research has tried to locate a place within its nonmetropolitan environment; further analysis ought to include a place's accessibility and integration with metropolitan areas. Distance to and size of the nearest metropolitan area as well as population potential may provide further clues about the growth experiences and growth future of nonmetropolitan cities. The next step in understanding the relationships between subregional characteristics and population change would be to take into account the functions of these places, delineating service centers in agricultural areas, manufacturing towns, and using other industrial and occupational characteristics to show the functions a community performs for its residents and the surrounding area.

Bibliography

Bogue, Donald J. 1950. "Economic Areas as a Tool for Research and Planning," American Sociological Review 15: 409-416.

Borts, George H. 1968. "Patterns of Regional Economic Development in the United States, and Their Relation to Rural Poverty," In: Rural Poverty in the United States, A Report by the President's National Advisory Commission on Rural Poverty, Washington, D. C., pp. 130-140.

Duncan, Beverly. 1959. "Population Distribution and Manufacturing Activity: The Nonmetropolitan United States in 1950," Papers and Proceedings of the Regional Science Association 5: 95-104.

Duncan, O. D., W. Richard Scott, Stanley Lieberson, Beverly Duncan, and Hal. H. Winsborough. 1960 Metropolis and Region, Resources for the Future, Inc., The Johns Hopkins Press, Baltimore.

Fanelli, A. Alexander, and Harold A. Pederson. 1956. Growth Trends in Mississippi Population Centers, 1900-1950, Mississippi State College, Community Series, No. 10.

Gibbs, Jack P. 1961. "Growth of Individual Metropolitan Areas: A Global View," Annals of the Association of American Geographers 51: 380-391.

Hansen, Niles M. 1970. Rural Poverty and the Urban Crisis, Indiana University Press, Bloomington.

Hart, J. F., and N. E. Salisbury. 1965. "Population Change in Middle Western Villages: A Statistical Approach," Association of American Geographers Annals 55: 140-160.

Higgs, Robert. 1969. "The Growth of Cities in a Midwestern Region, 1870-1900," Journal of Regional Science 9: 369-375.

Lampard, Eric. 1955. "The History of Cities in Economically Advanced Areas," In: Economic Development and Cultural Change, Vol. III, No. 2. pp. 81-136.

Lampard, Eric E. 1968. "The Evolving System of Cities in the United States: Urbanization and Economic Development," In: Issues in Urban Economics, Harvey S. Perloff and Lowdon Wingo, Jr. (eds.). Johns Hopkins Press, Baltimore, pp. 81-139.

Northam, R. 1963. "Declining Urban Centers in the United States, 1940-60," Annals of the Association of American Geographers 53: 50-59.

Perloff, Harvey S., and Lowdon Wingo, Jr. 1968. Issues in Urban Economics, Resources for the Future, Inc., The Johns Hopkins Press, Baltimore.

Sonenblum, Sidney. 1968. "The Uses and Development of Regional Projections," In: Issues in Urban Economics, Harvey S. Perloff and Lowdon Wingo, Jr. (eds.). Johns Hopkins Press, Baltimore, pp. 141-186.

Tarver, James D., and Joseph C. Urbon. 1963. Population Trends of Oklahoma Towns and Cities, Stillwater: Oklahoma Agricultural Experiment Station Bulletin T-105.

Thomas, Donald W. 1970. "The Regional Effect as a Factor in Small Town Growth and Decline in the United States, 1950 to 1960," Unpublished Ph.D. Dissertation, University of Wisconsin, Madison.

Thompson, Wilbur R. 1965. A Preface to Urban Economics, The Johns Hopkins Press, Baltimore.

Thompson, Wilbur R. 1969. Statement on Population Trends, Hearings before the Ad Hoc Subcommittee on Urban Growth of the Committee on Banking and Currency, House of Representatives, Ninety-First Congress, Part 1, U. S. Government Printing Office, Washington, D. C., pp. 565-596.

Table 1. Percentage Distribution of Nonmetropolitan Urban Places by Population Change, 1950-60, Region and Levels of SEA Extractive Employment

Region / Population Change 1950-60	Percent in Extractive Employment				
	0-9.9	10-19.9	20-29.9	30+	Total
Northeast					
Loss	40	43			41
0-19.9%	39	52			43
20%+	21	5			16
N	(206)	(92)			(298)
North Central					
Loss	11	17	21	13	17
0-19.9%	60	56	61	70	60
20%+	29	28	18	17	23
N	(123)	(358)	(256)	(153)	(890)
South					
Loss	11	15	15	18	15
0-19.9%	37	37	36	43	37
20%+	52	48	50	39	48
N	(162)	(382)	(377)	(141)	(1062)
West					
Loss	22	13	8	5	12
0-19.9%	33	39	31	50	36
20%+	44	48	60	45	52
N	(36)	(156)	(112)	(20)	(324)
Nonmetropolitan U.S.					
Loss	23	18	16	15	18
0-19.9%	43	45	44	57	46
20%+	34	36	40	29	36
N	(527)	(988)	(745)	(314)	(2574)

Table 2. Percentage Distribution of Nonmetropolitan Urban Places by Population Change, 1960-70, Region and Levels of SEA Extractive Employment

Region Population Change 1960-70	Percent in Extractive Employment				
	0-9.9	10-19.9	20-29.9	30+	Total
Northeast					
Loss	58	72			62
0-14.9%	26	14			22
15%+	16	14			15
N	(206)	(92)			(298)
North Central					
Loss	32	28	34	35	31
0-14.9%	48	49	44	41	46
15%+	20	23	22	25	23
N	(123)	(358)	(256)	(153)	(890)
South					
Loss	25	28	34	35	31
0-14.9%	35	38	36	39	37
15%+	40	34	30	25	32
N	(162)	(382)	(377)	(141)	(1062)
West					
Loss	33	27	42	25	33
0-14.9%	19	33	30	30	30
15%+	47	40	28	45	37
N	(36)	(156)	(112)	(20)	(324)
Nonmetropolitan U.S.					
Loss	40	32	35	35	35
0-14.9%	34	39	38	39	38
15%+	26	29	27	26	28
N	(527)	(988)	(745)	(314)	(2574)

Table 3. Percentage Distribution of Nonmetropolitan Urban Places by Population Change, 1950-60, Region and Levels of SEA Manufacturing Employment

Region / Population Change 1950-60	Percent Employed in Manufacturing 0-9.9	10-19.9	20-29.9	30-39.9	40+	Total
Northeast						
Loss		17	39	43	44	41
0-19.9%		50	47	39	53	43
20%+		33	15	18	3	16
N		(6)	(105)	(155)	(32)	(298)
North Central						
Loss	15	23	25	7	0	17
0-19.9%	61	60	61	57	74	60
20%+	25	18	14	36	26	23
N	(131)	(313)	(161)	(254)	(31)	(890)
South						
Loss	29	11	12	15	10	15
0-19.9%	31	37	39	40	51	37
20%+	39	52	49	45	39	48
N	(188)	(390)	(286)	(115)	(83)	(1062)
West						
Loss	12	7	23	24	0	12
0-19.9%	29	44	41	29	50	36
20%+	59	49	36	47	50	52
N	(135)	(131)	(22)	(34)	(2)	(324)
Nonmetropolitan U.S.						
Loss	20	15	21	20	15	18
0-19.9%	39	47	48	47	54	46
20%+	41	39	32	33	31	36
N	(454)	(840)	(574)	(558)	(148)	(2574)

Table 4. Percentage Distribution of Nonmetropolitan Urban Places by Population Change, 1960-70, Region and Levels of SEA Manufacturing Employment

Region / Population Change 1960-70	Percent Employed in Manufacturing 0-9.9	10-19.9	20-29.9	30-39.9	40+	Total
Northeast						
Loss		67	66	61	56	62
0-14.9%		17	16	23	44	22
15%+		17	18	17		15
N		(6)	(105)	(155)	(32)	(298)
North Central						
Loss	40	34	39	17	42	31
0-14.9%	36	43	46	56	39	46
15%+	24	23	15	27	19	23
N	(131)	(313)	(161)	(254)	(31)	(890)
South						
Loss	52	25	26	31	24	31
0-14.9%	29	40	36	38	43	37
15%+	19	35	38	30	33	32
N	(188)	(390)	(286)	(115)	(83)	(1062)
West						
Loss	46	23	9	35		33
0-14.9%	27	35	36	21		30
15%+	27	42	55	44	100	37
N	(135)	(131)	(22)	(34)	(2)	(324)
Nonmetropolitan U.S.						
Loss	46	28	36	33	34	35
0-14.9%	31	40	35	41	42	38
15%+	23	31	28	26	24	28
N	(454)	(840)	(574)	(558)	(148)	(2574)

Table 5. Percentage Distribution of Nonmetropolitan Urban Places by Population Change, 1950-60, Region and Median Family Income in SEA

Region Population Change 1950-60	Median Family Income, 1959 0-2999	3000-3999	4000-4999	5000-5999	6000+	Total
Northeast						
Loss			64	34	22	41
0-19.9%			30	53	34	43
20%+			6	13	44	16
N			(90)	(167)	(41)	(298)
North Central						
Loss	13	19	25	7	6	17
0-19.9%	80	64	57	63	50	60
20%+	7	17	19	31	45	23
N	(15)	(113)	(407)	(321)	(34)	(890)
South						
Loss	11	16	18	5		15
0-19.9%	43	37	33	26		37
20%+	46	47	49	69		48
N	(320)	(429)	(275)	(38)		(1062)
West						
Loss		57	10	12	4	12
0-19.9%		28	32	38	32	36
20%+		15	58	50	64	52
N		(7)	(59)	(233)	(25)	(324)
Nonmetropolitan U.S.						
Loss	11	17	26	14	12	18
0-19.9%	45	42	44	51	39	46
20%+	44	40	30	35	49	36
N	(335)	(549)	(831)	(759)	(100)	(2574)

Table 6. Percentage Distribution of Nonmetropolitan Urban Places by Population Change, 1960-70, Region and Median Family Income in SEA

Region / Population Change 1960-70	Median Family Income, 1959 0-2999	3000-3999	4000-4999	5000-5999	6000+	Total
Northeast						
Loss			81	63	15	62
0-14.9%			9	27	34	22
15%+			10	10	51	15
N			(90)	(167)	(41)	(298)
North Central						
Loss	33	29	39	23	21	31
0-14.9%	47	48	38	55	53	46
15%+	20	23	23	22	26	23
N	(15)	(113)	(407)	(321)	(34)	(890)
South						
Loss	25	32	33	47		31
0-14.9%	43	35	36	24		37
15%+	32	33	31	29		32
N	(320)	(429)	(275)	(38)		(1062)
West						
Loss		57	42	31	16	33
0-14.9%		29	23	32	28	30
15%+		14	34	36	56	37
		(7)	(59)	(233)	(25)	(324)
Nonmetropolitan U.S.						
Loss	25	32	42	36	17	35
0-14.9%	43	38	33	40	39	38
15%+	32	31	25	24	44	28
N	(335)	(549)	(831)	(759)	(100)	(2574)

Table 7. Percentage Distribution of Nonmetropolitan Urban Places by Population Change, 1950-60, Region and SEA Population Change, 1950-60

Region Population Change 1950-60	SEA Population Change, 1950-60			
	Loss	0-9.9%	10%+	Total
Northeast				
Loss	87	43	22	41
0-19.9%	13	49	49	43
20%+	0	8	29	16
N	(47)	(125)	(126)	(298)
North Central				
Loss	29	17	7	17
0-19.9%	59	62	58	60
20%+	12	21	34	23
N	(234)	(366)	(290)	(890)
South				
Loss	23	10	7	15
0-19.9%	42	41	24	37
20%+	35	49	69	48
N	(453)	(335)	(274)	(1062)
West				
Loss	29	14	9	12
0-19.9%	33	53	31	36
20%+	38	33	60	52
N	(24)	(73)	(227)	(324)
Nonmetropolitan U.S.				
Loss	29	18	10	18
0-19.9%	46	52	40	46
20%+	26	30	50	36
N	(758)	(899)	(917)	(2574)

Table 8. Percentage Distribution of Nonmetropolitan Urban Places by Population Change, 1960-70, Region and SEA Population Change, 1950-60

Region Population Change 1960-70	SEA Population Change, 1950-60			
	Decline	0-9.9%	10%+	Total
Northeast				
Loss	87	72	43	62
0-14.9%	9	19	31	22
15%+	4	8	26	15
N	(47)	(125)	(126)	(298)
North Central				
Loss	38	33	24	31
0-14.9%	44	44	50	46
15%+	18	23	26	23
N	(234)	(366)	(290)	(890)
South				
Loss	33	29	30	31
0-14.9%	37	37	37	37
15%+	30	34	33	32
N	(453)	(335)	(274)	(1062)
West				
Loss	50	32	31	33
0-14.9%	38	40	26	30
15%+	13	29	42	37
N	(24)	(73)	(227)	(324)
Nonmetropolitan U.S.				
Loss	38	37	30	35
0-14.9%	37	38	38	38
15%+	25	25	32	28
N	(758)	(899)	(917)	(2574)

Table 9. Percent of Nonmetropolitan Urban Places Growing, 1950-60, by Median Family Income of SEA, Region and SEA Population Change, 1950-60

Region SEA Change	Median Family Income, 1959 0-2999 (N)	3000-3999 (N)	4000-4999 (N)	5000-5999 (N)	6000+ (N)	Total (N)
Northeast						
Decline			13 (45)	0 (2)		13 (47)
0-9.9%			58 (45)	56 (78)	50 (2)	57 (125)
10%+				77 (87)	79 (39)	78 (126)
North Central						
Decline	87 (15)	76 (86)	67 (133)			71 (234)
0-9.9%		96 (23)	78 (237)	91 (106)		83 (366)
10%+		100 (4)	81 (37)	94 (215)	94 (34)	93 (290)
South						
Decline	88 (235)	73 (148)	52 (69)	100 (1)		77 (453)
0-9.9%	98 (55)	87 (193)	91 (85)	100 (2)		90 (335)
10%+	87 (30)	94 (88)	93 (121)	94 (35)		93 (274)
West						
Decline		43 (7)	73 (11)	100 (6)		71 (24)
0-9.9%			100 (8)	84 (64)	100 (1)	85 (73)
10%+			92 (40)	90 (163)	96 (24)	91 (227)
Nonmetropolitan U.S.						
Decline	88 (250)	73 (241)	54 (258)	78 (9)		71 (758)
0-9.9%	98 (55)	73 (216)	79 (375)	78 (250)	67 (3)	82 (899)
10%+	87 (30)	95 (92)	90 (198)	90 (500)	89 (97)	90 (917)

Table 10. Percent of Nonmetropolitan Urban Places Growing, 1960-70, by Median Family Income of SEA, Region and SEA Population Change, 1950-60

Region SEA Change	Median Family Income, 1959 0-2999 (N)	3000-3999 (N)	4000-4999 (N)	5000-5999 (N)	6000+ (N)	Total (N)
Northeast						
Decline			9 (45)	100 (2)		13 (47)
0-9.9%			29 (45)	27 (78)	50 (2)	28 (125)
				44 (87)	87 (39)	57 (126)
North Central						
Decline	67 (15)	69 (86)	58 (133)			62 (234)
0-9.9%		78 (23)	61 (237)	77 (106)		67 (366)
10%+		75 (4)	70 (37)	77 (215)	79 (34)	76 (290)
South						
Decline	79 (235)	63 (148)	39 (69)	0 (1)		67 (453)
0-9.9%	67 (55)	73 (193)	69 (85)	50 (2)		71 (335)
10%+	60 (30)	67 (88)	80 (121)	54 (35)		70 (274)
West						
Decline		43 (7)	27 (11)	100 (6)		50 (24)
0-9.9%			75 (8)	67 (64)	100 (1)	68 (73)
10%+			62 (40)	68 (163)	83 (24)	69 (227)
Nonmetropolitan U.S.						
Decline	78 (250)	64 (241)	43 (258)	89 (9)		62 (758)
0-9.9%	67 (55)	74 (216)	59 (375)	59 (250)	67 (3)	63 (899)
10%+	60 (30)	67 (92)	75 (198)	67 (500)	83 (97)	70 (917)

Table 11. Regression of Place Population Change, 1950-60, on Subregional Characteristics and Size of Place by Region

Independent Variables	Standardized Regression Coefficients (zero-order correlation)				
	Northeast	North Central	South	West	U.S.
% Extractive Employed	-.12 (-.21)	.03 (-.09)	-.09 (-.12)	-.09 (.02)	-.07* (-.05)
% Manufacturing Employed	-.13 (-.08)	-.08 (.11)	-.05 (-.03)	-.16 (-.15)	-.09* (-.07)
Median Family Income, 1959	-.18 (.32)	.05 (.17)	-.04 (.13)	-.07 (.04)	-.14* (.03)
SEA Population Change, 1950-60	.40* (.44)	.27* (.2[illegible])	.29* (.32)	.23* (.24)	.36* (.32)
Size of Place, 1950 (Log)	-.23* (-.29)	-.2[illegible] (-.2[illegible])	-.26* (-.28)	-.25* (-.26)	-.23* (-.26)
R	.51	.33	.41	.37	.42
R^2	.26	.11	.17	.14	.18

*Coefficient is greater than twice its standard error.

Table 12. Regression of Place Population Change, 1960-70, on Subregional Characteristics, Size of Place and Dependency Status by Region

	Standardized Regression Coefficients (zero-order correlation)				
Independent Variables	Northeast	North Central	South	West	U.S.
% Extractive Employed	.04 (-.21)	.26* (-.03)	-.11* (-.15)	-.07 (-.14)	-.01 (-.06)
% Manufacturing Employed	-.06 (-.01)	.22* (.09)	.01 (.04)	.001 (.09)	-.01 (-.01)
Median Family Income, 1959	.29* (.41)	-.07 (.08)	-.16* (.05)	.10 (.17)	-.16* (.02)
SEA Population Change, 1950-60	.19 (.42)	.19* (.13)	.31* (.27)	.07 (.18)	.31* (.25)
Size of Place, 1960, (Log)	-.23* (-.13)	.001 (.04)	.03 (-.01)	.24* (.15)	.02 (.01)
Submetropolitan City	.14 (-.09)	.06 (.05)	-.07 (-.03)	-.04 (.12)	-.01 (.00)
Adjacent-dependent City	.04 (.14)	.04 (.03)	.03 (.10)	.19* (.14)	.05* (.07)
R R^2	.46 .21	.19 .04	.31 .098	.31 .098	.28 .08

*Coefficient is greater than twice its standard error.